

SEQUENCE LISTING

<110> Innogenetics N.V.

<120> HBV DRUG RESISTANCE AND DRUG RESISTANCE DETECTION METHODS

<130> 2551-158

<140> 10/509,094

<141> 2004-01-22

<150> PCT/EP02/03559

<151> 2002-03-29

<160> 16

<170> PatentIn version 3.1

<210> 1

<211> 160

<212> PRT

<213> hepatitis B virus

<400> 1

Ala	Met	Pro	His	Leu	Leu	Val	Gly	Ser	Ser	Gly	Leu	Ser	Arg	Tyr	Val
1				5					10					15	

Ala	Arg	Leu	Ser	Ser	Asn	Ser	Arg	Ile	Phe	Asn	Tyr	Gln	His	Gly	Thr
		20						25					30		

Met	Gln	Asn	Leu	His	Asp	Ser	Cys	Ser	Arg	Asn	Leu	Tyr	Val	Ser	Leu
		35					40						45		

Leu	Leu	Leu	Tyr	Gln	Thr	Phe	Gly	Arg	Lys	Leu	His	Leu	Tyr	Ser	His
	50					55					60				

Pro	Ile	Ile	Leu	Gly	Phe	Arg	Lys	Ile	Pro	Met	Gly	Val	Gly	Leu	Ser
65					70					75				80	

Pro	Phe	Leu	Leu	Ala	Gln	Phe	Thr	Ser	Ala	Ile	Cys	Ser	Val	Val	Arg
			85						90					95	

Arg	Ala	Phe	Pro	His	Cys	Leu	Ala	Phe	Ser	Tyr	Met	Asp	Asp	Val	Val
			100					105					110		

Leu	Gly	Ala	Lys	Ser	Val	Gln	His	Leu	Glu	Ser	Leu	Phe	Thr	Ala	Val
		115					120						125		

Thr Asn Phe Leu Leu Ser Leu Gly Ile His Leu Asn Pro Asn Lys Thr
130 135 140

Lys Arg Trp Gly Tyr Ser Leu His Phe Met Gly Tyr Val Ile Gly Cys
145 150 155 160

<210> 2
<211> 137
<212> PRT
<213> hepatitis B virus

<400> 2

Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu
1 5 10 15

Pro Val Cys Pro Leu Ile Pro Gly Ser Ser Thr Thr Ser Thr Gly Pro
20 25 30

Cys Arg Thr Cys Thr Thr Pro Ala Gln Gly Thr Ser Met Tyr Pro Ser
35 40 45

Cys Cys Cys Thr Lys Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile
50 55 60

Pro Ser Ser Trp Ala Phe Gly Lys Phe Leu Trp Glu Trp Ala Ser Ala
65 70 75 80

Arg Phe Ser Trp Leu Ser Leu Val Pro Phe Val Gln Trp Phe Val Gly
85 90 95

Leu Ser Pro Thr Val Trp Leu Ser Val Ile Trp Met Met Trp Tyr Trp
100 105 110

Gly Pro Ser Leu Tyr Ser Ile Leu Ser Pro Phe Leu Pro Leu Leu Pro
115 120 125

Ile Phe Phe Cys Leu Trp Val Tyr Ile
130 135

<210> 3
<211> 480
<212> DNA
<213> hepatitis B virus

<400> 3

```
gctatgcctc atcttcttgt tggttcttct ggactatcaa ggtatgttgc ccgtttgtcc      60
tctaattcca ggatcttcaa ctaccagcac gggaccatgc agaacctgca cgactcctgc      120
tcaaggaacc tctatgtatc cctcctgttg ctgtacaaaa ccttcggacg gaaattgcac      180
ctgtattccc atcccatcat cctgggcttt cggaaaattc ctatgggagt gggcctcagc      240
ccgtttctcc tggctcagtt tactagtgcc atttgttcag tggttcgtag ggctttcccc      300
cactgtttgg ctttcagtta tatggatgat gtggtattgg gggccaagtc tgtacagcat      360
cttgagtccc tttttaccgc tgttaccaat tttcttctgt ctttgggtat acatttaaac      420
cctaacaaaa caaaaagatg gggttactct ttacatttca tgggctatgt cattggatgt      480
```

<210> 4

<211> 160

<212> PRT

<213> hepatitis B virus

<400> 4

```
Ala Met Pro His Leu Leu Val Gly Ser Ser Gly Leu Ser Arg Tyr Val
1              5              10              15
```

```
Ala Arg Leu Ser Ser Asn Ser Arg Ile Phe Asn Tyr Gln His Gly Thr
20              25              30
```

```
Met Gln Asn Leu His Asp Ser Cys Ser Arg Asn Leu Tyr Val Ser Leu
35              40              45
```

```
Leu Leu Leu Tyr Gln Thr Phe Gly Arg Lys Leu His Leu Tyr Ser His
50              55              60
```

```
Pro Ile Ile Leu Gly Phe Arg Lys Ile Pro Met Gly Val Gly Leu Ser
65              70              75              80
```

```
Pro Phe Leu Met Ala Gln Phe Thr Ser Ala Ile Cys Ser Val Val Arg
85              90              95
```

```
Arg Ala Phe Pro His Cys Leu Ala Phe Ser Tyr Ser Asp Asp Val Val
100             105             110
```

```
Leu Gly Ala Lys Ser Val Gln His Leu Glu Ser Leu Phe Thr Ala Val
115             120             125
```

Thr Asn Phe Leu Leu Ser Leu Gly Ile His Leu Asn Pro Asn Lys Thr
130 135 140

Lys Arg Trp Gly Tyr Ser Leu His Phe Met Gly Tyr Val Ile Gly Cys
145 150 155 160

<210> 5
<211> 137
<212> PRT
<213> hepatitis B virus

<400> 5

Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu
1 5 10 15

Pro Val Cys Pro Leu Ile Pro Gly Ser Ser Thr Thr Ser Thr Gly Pro
20 25 30

Cys Arg Thr Cys Thr Thr Pro Ala Gln Gly Thr Ser Met Tyr Pro Ser
35 40 45

Cys Cys Cys Thr Lys Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile
50 55 60

Pro Ser Ser Trp Ala Phe Gly Lys Phe Leu Trp Glu Trp Ala Ser Ala
65 70 75 80

Arg Phe Ser Trp Leu Ser Leu Val Pro Phe Val Gln Trp Phe Val Gly
85 90 95

Leu Ser Pro Thr Val Trp Leu Ser Val Ile Val Met Met Trp Tyr Trp
100 105 110

Gly Pro Ser Leu Tyr Ser Ile Leu Ser Pro Phe Leu Pro Leu Leu Pro
115 120 125

Ile Phe Phe Cys Leu Trp Val Tyr Ile
130 135

<210> 6
<211> 480

<212> DNA
<213> hepatitis B virus

<400> 6

```
gctatgcctc atcttcttgt tggttcttct ggactatcaa ggtatgttgc ccgtttgtcc      60
tctaattcca ggatcttcaa ctaccagcac gggaccatgc agaacctgca cgactcctgc      120
tcaaggaacc tctatgtatc cctcctgttg ctgtaccaa ccttcggacg gaaattgcac      180
ctgtattccc atcccatcat cctgggcttt cggaaaattc ctatgggagt gggcctcagc      240
ccgtttctca tggctcagtt tactagtgcc atttgttcag tggttcgtag ggctttcccc      300
cactgtttgg ctttcagtta tagtgatgat gtggtattgg gggccaagtc tgtacagcat      360
cttgagtccc tttttaccgc tgttaccaat tttcttttgt ctttgggtat acatttaaac      420
cctaacaaaa caaaaagatg gggttactct ttacatttca tggggtatgt cattggatgt      480
```

<210> 7
<211> 31
<212> DNA
<213> artificial sequence

<220>
<223> synthetic probe or primer

<400> 7

```
cacctgcagc ctcattttgt gggtcaccat a      31
```

<210> 8
<211> 35
<212> DNA
<213> artificial sequence

<220>
<223> synthetic probe or primer

<400> 8

```
cataagcttc acaattcggt gacatacttt ccaat      35
```

<210> 9
<211> 31
<212> DNA
<213> artificial sequence

<220>
<223> synthetic probe or primer

<400> 9

gtgctgcagt ttgtgggtca ccatattctt g

31

<210> 10

<211> 32

<212> DNA

<213> artificial sequence

<220>

<223> synthetic probe or primer

<400> 10

gacaagcttt tgacatactt tccaatcaat ag

32

<210> 11

<211> 12

<212> PRT

<213> artificial sequence

<220>

<223> Tag 100 epitope

<400> 11

Glu Glu Thr Ala Arg Phe Gln Pro Gly Tyr Arg Ser
1 5 10

<210> 12

<211> 10

<212> PRT

<213> artificial sequence

<220>

<223> c-myc epitope

<400> 12

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
1 5 10

<210> 13

<211> 7

<212> PRT

<213> artificial sequence

<220>

<223> FLAG-epitope

<400> 13

Asp Tyr Lys Asp Asp Asp Lys

1 5

<210> 14
<211> 9
<212> PRT
<213> artificial sequence

<220>
<223> HA epitope

<400> 14

Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
1 5

<210> 15
<211> 12
<212> PRT
<213> artificial sequence

<220>
<223> protein C epitope

<400> 15

Glu Asp Gln Val Asp Pro Arg Leu Ile Asp Gly Lys
1 5 10

<210> 16
<211> 11
<212> PRT
<213> artificial sequence

<220>
<223> VSV epitope

<400> 16

Tyr Thr Asp Ile Glu Met Asn Arg Leu Gly Lys
1 5 10